

Appl.No.09/615,643
Response dated April 10, 2003
Reply to Office action of Dec.10, 2002

Listing of the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Please amend the claims as follows:

1. (Currently Amended) A method of forming a bone composite, comprising:
 - providing bone tissue;
 - grinding said bone tissue to form osteoinductive ground bone tissue including an organic matrix;
 - molding the osteoinductive ground bone tissue into a solid bone composite structure;
 - applying a binder to the bone composite; and
 - curing the bone composite into a solid structure that will maintain a solid structure after hydration.
2. (Original) The method of claim 1, wherein the bone tissue is substantially cortical bone tissue.
3. (Original) The method of claim 2, wherein the bone tissue is substantially demineralized.

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4. (Original) The method of claim 2, wherein the bone tissue is greater than 50% cortical bone tissue.

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5. (Original) The method of claim 2, wherein the bone tissue is greater than 70% cortical bone tissue.

6. (Original) The method of claim 1, wherein the ground bone tissue is greater than 90% cortical bone tissue.

7. (Original) The method of claim 1, wherein the ground bone tissue is greater than 95% cortical bone tissue.

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8. (Currently Amended) The method of claim 1, wherein the ground bone tissue is ground to a size ranging from 125 to 850 microns in size.

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9. (Original) The method of claim 1, wherein the molding step occurs at from 14.7 p.s.i. to about 30,000 p.s.i.

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10. (Original) The method of claim 1, wherein the binder is applied to the ground bone before the molding step.

11. (Original) The method of claim 1, where the binder is applied to the ground bone after the molding step.

12. (Original) The method of claim 1, wherein the binder is applied by an injection, spray, bath, soaking or layering.

13. (Original) The method of claim 1, wherein the binder comprises fibrin.

14. (Original) The method of claim 1, wherein the binder comprises cyanoacrylates.

15. (Currently Amended).The method of claim 12 14, wherein the cyanoacrylates comprise ester chain, N-butyl, or butyl cyanoacrylates.

16. (Currently Amended).The method of claim 12 14, wherein the cyanoacrylates are long chain cyanoacrylates.

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17. (Original) The method of claim 1, wherein the bone composite solid structure is a bone pin, screw or prosthesis.

18. (Original) The method of claim 1, wherein the molding step further comprises the application of pressure and shaping the composite with a die.

19. (Withdrawn).

20. (Previously Canceled).

21-31 (Withdrawn).

32. (Currently Amended) A method of forming an implantable bone composite structure, comprising:

1 providing bone tissue,

C grinding said bone tissue to a size of from 125 to 850 microns in size to form ground bone tissue,

molding the ground bone tissue under pressure to form a bone composite structure,

introducing a cyanoacrylate binder to the bone composite, and

allowing the bone composite to solidify into a force bearing solid structure that will maintain a solid structure after hydration.